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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,396	08/15/2006	Hidegori Yoshida	294829US0PCT	8201
22850 7590 07/09/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER WELTER, RACHAEL E				
ART UNIT		PAPER NUMBER		
1611				
NOTIFICATION DATE		DELIVERY MODE		
07/09/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/589,396

**Applicant(s)**

YOSHIDA ET AL.

**Examiner**

RACHAEL E. WELTER

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date See Continuation Sheet
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :8/15/06, 9/3/09, 12/28/09, 2/2/10, 4/16/10.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of four binders: sodium carboxymethylcellulose, xanthan gum, carrageenan, and sodium alginate in the reply filed 5/3/10 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the election of species requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Thus, the election of species requirement is deemed proper and is made FINAL noting applicant's right to pursue the non-elected groups or species in one or more divisional applications.

### ***Claim Status***

Claims 1-8 are pending.

### ***Information Disclosure Statement***

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The information disclosure statements (IDS) submitted on August 15, 2006, September 3, 2009, December 28, 2009, February 2, 2010, and April 16, 2010 were in compliance with the provisions of 37 CFR 1.97 and 37 CFR 1.98. Accordingly, the information disclosure statements were considered by the examiner. A signed copy of forms 1449 are enclosed herewith.

### ***Specification***

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Foreign Priority***

Acknowledgement is made of applicant's foreign priority claim to JP 2004-079679 filed 3/19/2004, JP 2004-152143 filed 5/21/2004, JP 2004-257541 filed 9/3/2004, and JP 2004-257542 filed 9/3/2004. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-199456 (Published 7/27/1999; Translation provided herein).

JP '456 discloses a toothpaste composition with 0.5 wt.% crystalline cellulose powder with a particle size of 60 um, 30 wt.% calcium hydrogen phosphate anhydrate as an abrasive, and sodium lauryl sulfate as a surfactant (paragraph 0029) Exemplified RDA values were 40, 42, 90, 130, 115, and 110 (see Table 2). One or two more binders are exemplified in the compositions including carrageenan and xanthan gum (paragraph 0029).

Regarding the limitation of claim 5, wherein the powder cellulose is a non-granulated powder, JP '456 does not teach or suggest that its cellulose is granulated. However, the cellulose's particle size of JP '456 anticipates the instant particle size. As such, it is the examiner's position that the powder is non-granulated unless applicant proves otherwise.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi et al (JP 2003-081796; Published 3/19/2003; see translation provided by applicant in IDS of 9/3/09).

Koichi et al teach a composition for the oral cavity that prevents coloration of the teeth comprising a first abrasive having an RDA of 130-200 and a second abrasive having an RDA of 40-110 (claims 5 and 7). The first abrasive is in an amount of 0.5-10 wt.% and the second abrasive is in an amount of 3-25 wt. %

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(paragraphs 0022, 0029). The composition also comprises a surfactant (claim 1) and can include powder state cellulose in an amount of 0.1-30 wt.% and preferably 0.5-10 wt.% (paragraph 0037). Binders in the composition include sodium alginate, carrageenan, xanthan gum and sodium carboxymethylcellulose (paragraph 0041). The binders may be used independently or two or more can be mixed.

Although Koichi suggests the use of powder cellulose, it is not immediately envisaged and therefore the instant rejection is made under obviousness.

However, it would have been obvious to an artisan of ordinary skill at the time the invention was made to look at the guidance provided by Koichi and incorporate powder cellulose in its composition. One would have been motivated to do so since Koichi suggests the use of powder cellulose as a suitable excipient in oral compositions. Furthermore, it is within the skill of an artisan to select powder cellulose depending on the desired cleaning power of the composition.

Regarding the amount of powder cellulose, Koichi teaches an amount that overlaps and encompasses the instant amount. It is within the skill of an artisan to look at the guidance provided by Koichi and manipulate the concentrations of powder cellulose depending on the concentration of the other ingredients in the composition. It should be noted that generally difference in concentrations do not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such as concentration is critical. See *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).



Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi et al (JP 2003-081796; Published 3/19/2003; see translation provided by applicant in IDS of 9/3/09) as applied to claims 1, 3, and 6-8 above and in further view of JP 11-199456 (Published 7/27/1999; Translation provided herein).

The disclosure of Koichi is discussed above.

Koichi does not teach the instant particle size of powder cellulose.

JP '456 discloses a toothpaste composition with 0.5 wt.% crystalline cellulose powder with a particle size of 60  $\mu$ m, 30 wt.% calcium hydrogen phosphate anhydrate as an abrasive, and sodium lauryl sulfate as a surfactant (paragraph 0029). Exemplified RDA values were 40, 42, 90, 130, 115, and 110 (see Table 2). One or two more binders are exemplified in the compositions including carrageenan and xanthan gum (paragraph 0029). According to JP '456 a desirable mean particle size of powder cellulose is 70-150  $\mu$ m (paragraph 0005). JP '456 teaches that powder cellulose smaller than 50  $\mu$ m will not achieve sufficient cleaning powder and particle sizes larger than 200  $\mu$ m will be both undesirable and uncomfortable for the consumer.

Therefore, it would have been obvious to an artisan of ordinary skill at the time the invention was made to incorporate the instant particle size of powder cellulose in the oral cavity composition of Koichi. One would have been motivated to do so since JP '456 suggests that such a particle size is desired because it provides sufficient cleaning and more comfort for the consumer.

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Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi et al (JP 2003-081796; Published 3/19/2003; see translation provided by applicant in IDS of 9/3/09) or JP 11-199456 (Published 7/27/1999; Translation provided herein) in view of Satoshi et al (JP 01-299211; Published 12/4/1989; Abstract Only).

The disclosures of Koichi and JP '456 are discussed above.

Koichi or JP '456 do not teach compositions with granules having a particle size permitting passage of a 30-mesh sieve but not permitting passage of a 200-mesh sieve.

The Japanese Office Action of 11/10/09 translates JP 01-299211. According to the Office Action and abstract of JP '211, the reference teaches granules having a particle size passing through a 30 mesh sieve but incapable of passing through a 200 mess sieve in a dentrifice composition. The granules are added to increase abrasive power (see pg. 3 of Office Action).

Therefore, it would have been obvious to an artisan at the time the invention was made to add such granules to the oral/toothpaste composition of JP '456 or Koichi. One would have been motivated to do so in order to add more abrasive power to the compositions as suggested in JP '211. Since the compositions of Koichi and JP '456 desire compositions with abrasives, an artisan of ordinary skill would have been motivated to add more abrasives with the expectation that such an addition could result in a complementary or possibly synergistic effect. Furthermore, it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same

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purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (see MPEP 2144.06).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi et al (JP 2003-081796; Published 3/19/2003; see translation provided by applicant in IDS of 9/3/09) or JP 11-199456 (Published 7/27/1999; Translation provided herein) in view of Hiroaki et al (JP 09-295947; Published 11/18/1997; Translation provided by applicant in IDS of 9/3/09).

The disclosures of Koichi and JP '456 are discussed above.

The average polymerization degree of powder cellulose in Koichi or JP '456 is not clear. The average polymerization degree may be the same as claimed. JP '456 teaches that its powder cellulose has a fixed degree of polymerization (paragraph 0005). However, neither JP '456 nor Koichi explicitly teach powder cellulose having an average polymerization degree of 440-2250.

Hiroaki et al teach microspherical particles with a diameter of 0.08-1 mm containing at least 10 wt.% powdered cellulose with an average degree of polymerization of 380-2500 (claim 1). The microspherical particles are useful as vehicles for pharmaceuticals and food products (paragraph 0001). According to Hiroaki, a common commercially available product of cellulose powder exhibits a preferable average polymerization degree of 440-2250 (paragraph 0014).

Although Koichi or JP '456 do not specify the average polymerization degree of powder cellulose, which may be taught in the references, it would have been obvious to an artisan of ordinary skill at the time the invention was made to look at the teachings of Koichi or JP '456 and expect the powder cellulose to have the instant average polymerization degree. One would have expected this since Hiroaki teaches that a common commercially available product of powder cellulose used in pharmaceutical/food compositions exhibits the instant average polymerization degree (preferably 440-2250). Furthermore, one would have been motivated to manipulate the powder cellulose of Koichi or JP '456 to have the instant polymerization degree because Hiroaki suggests that powder cellulose with the instant polymerization degree is conventional in pharmaceuticals and food products.

### ***Conclusion***

Claims 1-8 are rejected. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RACHAEL E. WELTER whose telephone number is (571) 270-5237. The examiner can normally be reached 7:30-5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached at 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

REW

/David J Blanchard/  
Primary Examiner, Art Unit 1643